

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<b>Application No.</b> 10/586,785	<b>Applicant(s)</b> ROTHMANN ET AL.	
	<b>Examiner</b> Bradley Etherton	<b>Art Unit</b> 1771	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 06 December 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: \_\_\_\_\_.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
 See attached Continuation Sheet (PTO-303).  
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☒ Other: PTO-892 (Notice of References Cited).

/Glenn A Caldarola/  
Supervisory Patent Examiner, Art Unit 1771

/Bradley Etherton/  
Examiner, Art Unit 1771

In regard to the rejections of claims 10-17 and 24 over Bloch, in view of Rothmann, Applicants argue that the combination of the two references is inappropriate because there is no reasonable expectation of success when modifying the oils, greases, and waxes of Bloch with the teaching of Rothmann. The Examiner respectfully disagrees. In the Office Action dated July 7, 2010, there was no suggestion that the oils, greases, and waxes be modified when stating the motivation for combining the references. Instead, it was asserted the it was prima facie obvious to modify the process by replacing, i.e., substituting, the oils, greases, and waxes of Bloch, et al. (U.S. 5,411,876) with the alkanes of Rothmann, et al. (U.S. 2003/0065152). Rothmann teaches that alkanes are appropriate for preventing contamination of samples during PCR analysis (paragraphs [0006]-[0010]). Rothmann also teaches that alkanes may be used in place of mineral oils. Bloch is also concerned with preventing contamination of samples during PCR analysis. Replacing oils, greases, and waxes with alkanes is nothing more than substituting one known prior art substance for another known prior art substance in the same application, i.e., PCR analysis. Therefore, Rothmann is considered to provide a reasonable expectation of success when mineral oils are replaced with alkanes.

In response to Applicants' argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicants suggest that the Rothmann reference fails to teach "adding a layer of an immiscible hydrocarbon on top of an aqueous solution of the biopolymer." The Examiner agrees with Applicants that Rothmann is silent regarding the miscibility of unsubstituted hydrocarbons and whether the hydrocarbons form a layer. However, when addressing the criteria for selecting substituted hydrocarbons Rothmann teaches, "The prerequisite for using substituted hydrocarbons is that they are immiscible with water" (paragraph [0011]). Rothmann considers unsubstituted hydrocarbons in the same paragraph. Therefore, Rothmann is considered to teach that the same criterion, i.e., immiscibility, applies to both substituted and unsubstituted hydrocarbons.

Applicants suggest that the Rothmann fails to teach that the hydrocarbons form a layer covering the aqueous solution. The Examiner agrees that Rothmann is silent regarding whether a layer of immiscible hydrocarbon is formed on top of the aqueous solution. However, the Bloch reference was relied upon to teach that the overlay covers the aqueous solution. The Rothmann reference was not relied upon for this teaching. The Examiner respectfully suggests that Applicants are providing arguments against the references individually. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In regard to the rejections of claims 10-17 and 24 over Bloch, in view of Kosak, et al. (U.S. 5,968,729), and the rejections of claims 26-29 over Bloch, in view of Kosak and Moretto, et al. ("Silicones" in Ullmann's Encyclopedia of Chemical Technology, Wiley-VCH, 2002, on-line posting June 15, 2000). Applicants argue that Bloch teaches away from using oils as a contamination barrier and that one of ordinary skill would not consider using a mineral oil. The Examiner respectfully disagrees. Bloch points out that mineral oil is a known standard prior art method for providing overlays on PCR samples. The Examiner agrees that Bloch teaches some advantages of wax over oil, but those advantages are not associated with the function under consideration, i.e., preventing cross-contamination of DNA-containing samples during analysis. When taken as a whole, the Bloch reference is not considered to teach away from the use of mineral oil as a mean to prevent contamination. The advantages of wax pertain to secondary considerations involving post-PCR work-up, temperature control, solvent toxicity, and the like. One of ordinary skill would not dismiss such standard overlay materials as oils for preventing contamination by incidental DNA.

In regard to the Kosak reference, Kosak was relied upon to teach the compatibility of silicones with aqueous PCR samples. The Kosak reference was not relied upon to teach the use of silicones which are liquids at room temperature. The Examiner respectfully suggests that Applicants again are providing arguments against the references individually. As noted above, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

In regard to the use of the Moretto reference, this reference was relied upon to teach the compositions of silicone oils. In particular, Moretto discloses the number of silicon atoms in silicone oils. Applicants suggest that there is not a reasonable expectation of success for combining the teachings of Moretto with those of Bloch, in view of Kosak. The Examiner respectfully disagrees. Moretto discloses that silicone fluids, which have the same viscosity as mineral oil, commonly have the compositions recited in claims 26-29. Such fluids are considered to be equivalent to oils in terms of fluid behavior and one of ordinary skill would reasonably expect them to behave as oils.

In conclusion, Applicant's arguments filed December 6, 2010 have been fully considered but they are not considered persuasive.

/BE/

/Glenn A Caldarola/  
Supervisory Patent Examiner, Art Unit 1771